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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,508	04/20/2007	Yuko Miyake	4600-0125PUS1	9938
2292 7590 03/11/2011 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER PADEN, CAROLYN A				
ART UNIT 1781		PAPER NUMBER		
NOTIFICATION DATE 03/11/2011		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/587,508

**Applicant(s)**

MIYAKE ET AL.

**Examiner**

Carolyn A. Paden

**Art Unit**

1781

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-940)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

The final rejection has been withdrawn in response to applicants' arguments. Prosecution of the application continues with the following new grounds of rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4 and 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silkeberg (6,033,706) in view of Hui and Swern and further in view of Beroza and Hemalatha.

Silkeberg discloses refining edible oil to retain antioxidative potency. Sesame oil is one of the oils contemplated in the refining (abstract). Starting at column 4, the raw material is screen to select seeds for extraction. Next the seeds are extracted by solvent extraction with C1 to C4 alcohols, as suggested in claim 7. Although milling is not mentioned, it would have been obvious to mill the seeds to improve the extraction efficiency. After degumming and neutralization with alkali (NaOH at column 5, lines 40-48), the seeds are bleached by a dedicated bleaching process that acts to precursor antioxidants in the oil. At column 6, lines 13-31,

bleaching is accomplished by including 0.05-0.2% activated carbon and 0.1-1% acid bleaching clay. The treatment conditions are at about 95-100C and at 5-20mbar for 20-30 minutes. Next the oil is deodorized to produce oil with a reduced level of sesaminol oil in it (column 7 Table).

The claims appear to differ from Silkeberg in the recitation of the bleaching temperature used in the process. Hui teaches that there is no critical bleaching temperature for optimum bleaching results (paragraph 3, page 201). Hui also indicates that lower temperatures of 75-85C are recommended for some activated earths. It would have been obvious to one of ordinary skill in the art to lower the bleaching temperature of Silkeberg according to optimize the treatment results.

It is also appreciated that dewaxing, as required in claim 16, is not mentioned but dewaxing is a well known edible oil refining step and Swern at page 317 is relied upon to support this assertion.

The claims also appear to differ from Silkeberg in the recitation of the sesamin content of the sesame oil. Beroza and Hemalatha teach that the sesamin content of sesame oil varies a lot from one oil source to another. Three oil samples in Table 1 include 1% by weight sesamin in Beroza. Hemalatha shows even higher amounts of sesamin in sesame seed

samples from Assam (Table 1). It is appreciated that a specific sesame oil with a certain taste, sesamin and sesaminol content is not mentioned but one of ordinary skill in the art would be able to select a sesame oil for refining, as shown be Beroza and Hemalatha, that meets the particular requirements to obtain the desired final refined sesame oil. The Silkeberg method of refining would be expected to preserve the sesamin content of the oil while minimizing the sesaminol content of the oil.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn A Paden whose telephone number is (571) 272-1403. The examiner can normally be reached on Monday to Friday from 7 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached by dialing 571-272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is

available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Carolyn Paden/

Primary Examiner 1781